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*One Hundred Years
of
Business Life*

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*W. H. Schieffelin & Co.
New York*

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PREFATORY NOTE.

The year 1894 completes a century of existence for the house of W. H. Schieffelin & Co. They are naturally induced to emphasize the fact, and therefore, have determined to make it the occasion of offering to their friends a greeting in the form of the present pamphlet, which is intended to set forth the historical as well as commercial significance of this exceptional circumstance.

Six changes in the composition and name of the firm occur, which suggest convenient periods into which to divide the following story of American business life.

Lawrence & Schieffelin, 1794-1799.

Jacob Schieffelin, 1799-1805.

Jacob Schieffelin & Son, 1805-1814.

H. H. Schieffelin & Co., 1814-1849.

Schieffelin Brothers & Co., 1849-1865.

W. H. Schieffelin & Co., 1865-1894.



Schickel

LAWRENCE & SCHIEFFELIN.

(1794-1799)

It was at a most interesting period in the history of this Republic that John B. Lawrence and Jacob Schieffelin entered into partnership under the above firm name. Ten years had elapsed since the last soldier of the British king had left the soil of the now independent states. The interference with their commerce had been the great *casus belli* of the Revolution, and now that this commerce was no longer hampered by the jealous mother country, its channels no longer narrowly defined, its materials no longer taxed—a new impulse was imparted to it. This was especially true of the commerce of the future metropolis of the Republic. As one authority puts it: “The forward spring of New York after the freedom of trade from British restrictions was marvelous.” But still

there were many years of trial to follow while the Confederacy of the thirteen emancipated states was slowly evolving into a Federal Union, with a national government calculated to inspire respect and secure credit abroad.

A far greater stress was put upon the commerce of America by the practical anarchy of the period before the Constitution was adopted, than was ever endured in the Colonial days. There was nothing less than commercial war between the various States. Connecticut's hand was against Massachusetts, while New York and Pennsylvania had almost exterminated the trade of New Jersey. There being no responsible central government, there was no respectable or reliable currency: the country was flooded with inconvertible paper money, which was called "Continental," giving rise to a phrase still in vogue and still extremely expressive: "not worth a continental." It took ten dollars of this imaginary money to make one actual cent; a barrel of flour was worth \$1,575 of it, and Samuel Adams paid two thousand "Continental" dollars for a hat and a suit of clothes.

But in 1789 Washington was inaugurated at New York, on the site where the United States

Sub-Treasury stands to-day, and on that same spot, Hamilton, the first Secretary of the Treasury, initiated his financial policy, thus restoring the nation's credit both in its own estimation and in that of the world. Commerce then became once more a possibility, and prosperity for the Republic soon sprang up in its wake.

In 1794 the National Government had no longer its seat at New York. It was located at Philadelphia, and Washington had entered upon the second year of his second term. But it was a son of New York who now figured in a measure of far-reaching significance to the commerce of the nation. Early in this year John Jay, the Chief Justice of the Supreme Court of the United States, was sent on a special mission to England to effect a commercial treaty with that country. It was an exceedingly unpopular undertaking, but it was both necessary and wise. The French Revolution was now at its height. The King and Queen had been guillotined, and the Girondist party, which had caused their death, but had wished to stop at these outrages, had been crushed. In 1794, thirty of its leaders were decapitated in one day at the instance of Robespierre, under whose leadership the Red

Republicans of the Mountain now reigned supreme. In the face of these atrocities, there was a host of the democracy in the United States, who, disregarding this Reign of Terror, deemed it abhorrent to republican principles for our government to placate England instead of making an alliance with the sanguinary Republic of France. But France was productive mainly of fine ideas and indiscriminate murders, while with England a profitable trade was possible, if only she could be made to suppress her resentment toward us for having defeated her. It was to her own advantage as well as to ours, that an unrestricted commerce should be encouraged between the two countries. This was the purpose of Jay's mission to England, and he accomplished it; and though at first great indignation was aroused against him and the treaty, sober common sense prevailed, and the force of events proved the treaty of 1794 to be the opening of a great era in the commerce of the United States.

It was at this time that the firm of Lawrence & Schieffelin was formed, and then began the history of the house still designated by the name of Schieffelin. It was in part the continuance

of an important drug business which had its origin in the year 1781.

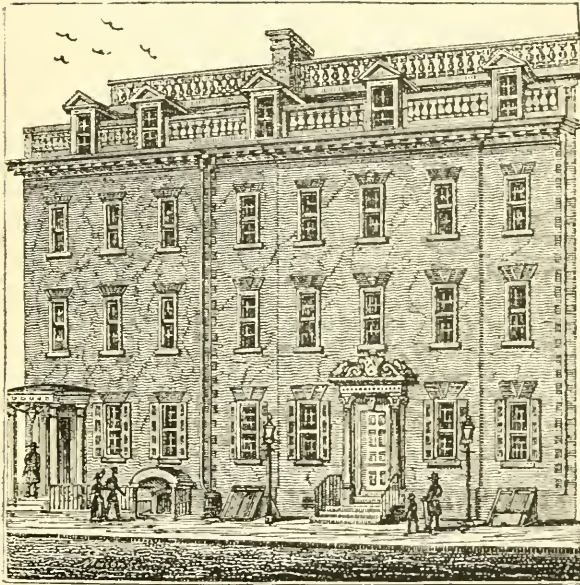
At that date Effingham Lawrence established himself as a drug merchant, and in the New York Directory for 1789 we find his address given as 227 Queen (now Pearl) Street. Effingham Lawrence was directly descended from that William Lawrence of Flushing, L. I., who was fined in 1666 for being somewhat too independent in his views to suit Richard Nicolls, the English Governor to whom, two years before, New Netherland had capitulated. John B. Lawrence, the partner of Schieffelin, was the brother of Effingham.

Jacob Schieffelin was the third of that name in America. In Europe the name and family have been traced back to Nördlingen in Germany and Geneva in Switzerland, as far as the thirteenth century. The first Jacob came to Philadelphia in 1740, but returned to Germany. His son Jacob came to Philadelphia in 1745, married there in 1756, and Jacob the founder of this house was born in 1757. He traveled extensively, and being a loyalist, served during the War of the Revolution on the staff of the British General Henry Hamilton. In 1780 he

came to New York, which had been since 1776 in possession of the British, and continued so until 1783. Upon their evacuation of the city he followed the example of a host of other loyalist residents of New York, and went with the English army to Canada, engaging there in business.

He became an extensive merchant and importer at Montreal. But having married Hannah, the daughter of John Lawrence, of Queens County, L. I., and the sister of Effingham, Schieffelin returned to New York about 1794. In that year he bought out the drug business of his brother-in-law, and took into partnership with him John B. Lawrence, another brother-in-law. The latter's name preceded, doubtless for the purpose of retaining the custom of the older house.

Schieffelin joined the German Society in 1794. In 1804, and for many years thereafter, he was a director in the Washington Assurance Society. He had a country seat on the banks of the Hudson, near those of his brothers-in-law, John B. Lawrence and Thomas Buckley, and Manhattanville was originally laid out by these three, embracing a portion of the lands of each.



THE WALTON MANSION-HOUSE, PEARL STREET.
(From the *New York Mirror*, 1832.)

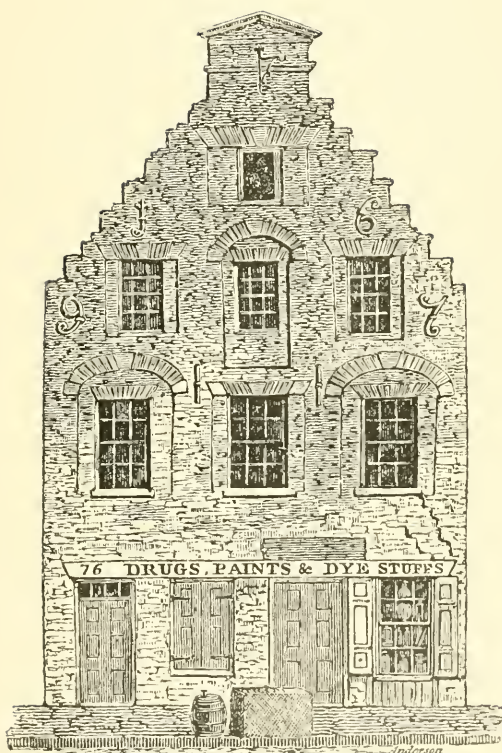
In the directory of New York for 1798, we find that Schieffelin's city residence was at 326 Pearl Street. This was the historic Walton house, built in 1754, which was made the illustration of an argument in Parliament to prove, during the anti-revolutionary agitations, the prosperity of the Colonies. This structure stood comparatively intact until 1881, when it was torn down.

In 1794 New York City was not as yet a place to boast of. On all the east side, the most thickly settled part, where business structures and residences most abounded, there was but one store built of brick; this was on the corner of Front Street and Gouverneur Lane. At that time the City Hotel in Broadway was in process of erection on the spot where had stood the house of James DeLancey, Lieutenant Governor of Colonial days, and where now the Boreel Building towers. At the same time, the noble steeple of St. Paul's on Broadway was being added to the church, built in 1765. South Street was not yet, and along Front Street, from the Battery to Peek Slip, the great ships lay at their wharves, for the North River front was deemed entirely too much exposed for safe wharfage. In 1794 the number of vessels of all kinds that

were recorded as having cleared the port of New York was 2,389. There exists a map or plan of the city in 1797, showing but a few scattered houses north of Leonard Street, to the west of Broadway, and north of Grand Street on the Bowery. In 1798, before the first partnership was dissolved, the dreadful yellow fever scourge occurred, which carried off 2,760 victims between July and November, and by reason of death and removals reduced the population to 15,300 persons.

Lawrence & Schieffelin's place of business was at 195 Pearl Street, opposite what was then called the Fly Market, at the foot of Maiden Lane. Schieffelin was the more enterprising of the two partners, doubtless because he had seen more of the world. He engaged in the shipping business, his first venture in 1795 clearing him the then considerable sum of \$25,000.

To this transaction Lawrence seems to have made no objections, but shipping was a precarious business in the days when the complications between Napoleon and the United States were assuming threatening proportions, and when England and France were seeking to blockade the trade of all the rest of the world. So when



Drawn by Davis.—Engraved by Anderson.

AN ANCIENT DUTCH HOUSE IN PEARL STREET.
 BUILT 1626, REBUILT 1697. DEMOLISHED 1828.
 (From the *New York Mirror*, 1831.)

later ventures turned out disastrously by reason of the capture of vessels, Lawrence withdrew, (in 1799) taking a clerk named Keese into partnership with him. Schieffelin went on with the drug business in his own name at the old address, 195 Pearl Street, while in the Directory for 1800 we find Lawrence's store at 199 in the same street.

N O T I C E.

THE CO-PARTNERSHIP of LAWRENCE & SCHIEFFELIN, Druggists, of this city, dissolves this day by mutual agreement. All persons having any demands against them, are desired to call on *Jacob Schieffelin*, the proprietor of the Store of Drugs and Medicines, No. 195, Pearl-Street, for payment; and those who are indebted to the concern, are requested to make immediate payment to the said *Jacob Schieffelin*, who is authorized to receive all debts that are outstanding.

New-York, October 18, 1799.

JOHN B. LAWRENCE,
JACOB SCHIEFFELIN

— — — — —
THE INSPECTED STORE OF

DRUGS & MEDICINES,

No. 195, Pearl-Street, near the Fly-Market, one house from the corner: Late

LAWRENCE AND SCHIEFFELIN,

In addition to the former Stock on hand, is now replenished by an extensive and general assortment of genuine DRUGS and MEDICINES from Europe, and sold as usual, Wholesale and Retail, on the lowest terms, for cash, country produce, or credit, by

JACOB SCHIEFFELIN,

Who hath purchased his Partner's Share in the said Store.

JACOB SCHIEFFELIN.

(1799-1805)

Pursuing his business solely in his own name, Schieffelin had now given to that name the prominence in business which it was destined to retain amid many vicissitudes until the present hour.

Some items showing the extent of commerce in this year will be of interest. The exports from the United States for the year ending October 1, 1799, were \$78,665,522; of these New York State was credited with \$18,719,527, the highest figure; Maryland being next, with \$16,299,609, and Pennsylvania ranking third, with \$12,431,967. In 1791 New York City had ranked fourth in the record of tonnage. But on December 31, 1799, the Secretary of the Treasury reported the total tonnage for the United States of vessels engaged in the foreign trade at 662,197; of which New York had 106,537 tons, Philadelphia 84,486, Baltimore 73,046, and Boston 67,664. Thus even in 1799 New York was forging ahead of the other cities, and fast attaining the position of the metropolis of the nation. It was no longer the political capital, but like its original namesake, Amsterdam, while not the seat of the govern-

ment of the Republic, it was to be forever its commercial capital. These were as yet the days of small things. The population in 1800 was but between fifty and sixty thousand, and Mayor Richard Varick and his associates in the municipal government managed to carry on their work with a budget of but \$130,000. Business went on at a very conservative pace when mail facilities were so limited. Lumbering stages ran to Albany, Boston and Philadelphia; they might reach the two former cities in a week; it was a marvel of velocity if Philadelphia was reached in two days. Added to the slowness of correspondence there was also the expense of it. By an Act going into effect May 1, 1799, a single letter could be carried for any distance less than forty miles for eight cents, with increase of a few cents for greater distances, until for between three and five hundred miles, the cost was twenty cents, and for any distance over five hundred miles, the charge was twenty-five cents.

In 1800 the country and the city were passing through one of the most exciting Presidential contests that have ever been experienced. Washington had passed away, and New York had done due honor to his memory by a solemn military

and civic procession, on the last day of the year, 1799. President Adams' term would expire in March, 1801.

Jefferson was the leading Republican or Anti-Federalist Candidate, and all men of that party wished to see him President. But Aaron Burr of New York was a close second, and in the Electoral College he actually obtained a tie vote with Jefferson. It was an anxious time for the Nation, until after thirty-seven ballots in the House of Representatives, the die was cast for the better and greater man, in February, 1801.

And now the Nineteenth Century, so fraught with marvels in the scientific as well as the commercial world, had fairly opened. Five years after, the time came for another change in the composition of the firm. Jacob Schieffelin, as the business grew upon his hands, took into partnership with him his son Henry Hamilton, named after his former General.

Henry Hamilton Schieffelin graduated from Columbia College in 1801. He studied law in the office of that eminent lawyer Cadwallader Colden. Afterward Mr. Colden and young Schieffelin made the tour of Europe together. They were in Paris when Napoleon I was proclaimed emperor.

An old newspaper of July 3, 1805, which announces the admission of Henry H. into business with his father, also contains this advertisement.

"Warren Brackett and Henry H. Schieffelin, attorneys-at-law, have entered into copartnership in the law business under the firm of Brackett & Schieffelin, and have opened their office at 193 Pearl Street."

Previously, Henry H. Schieffelin had his law office at 123 Pearl Street.

New-York, June 1st, 1805.

I beg leave to inform you, that I have this day taken into copartnership my ~~and son~~ Henry H. Schieffelin, who by his prudence, attention and exertions, has merited my confidence; and from which I have reason to expect much advantage and assistance.

My establishment will in future be conducted under the firm of JACOB SCHIEFFELIN & SON, as per signature at foot. Permit me to request the favor of your continued confidence and friendship, and to assure you, that possessing ample means, there will be always added a sincere disposition to render you every possible service in the execution of your orders for Drugs and Medicines, upon terms the most liberal, and to fulfil every engagement with the strictest punctuality and honor.

I remain,

Your obedient humble servant,

J. Schieffelin

JACOB SCHIEFFELIN & SON.

(1805-1814)

The business that Jacob Schieffelin & Son did was very heavy in those days. They had several buildings filled with drugs and other goods, besides the one they occupied at 193 Pearl Street.

"Files of old newspapers show that they advertised largely, and that they did not confine their attention solely to drugs. An advertisement offers for sale 'Muscovado sugars,' 'coffee in hogsheads,' (in those days they had a primitive way of packing coffee, it seems). Also, 'a shipment of cotton, just received from Guadeloupe.' Also, 'just received from London, per *Oneida Chief*, one hundred barrels double refined saltpetre.' They also advertise for export three hundred barrels gunpowder and four hundred casks brimstone. Such quantities were unusually large for a merchant of that period."

Two years before the firm was thus enlarged, the territory known as Louisiana was purchased from France. It was the opening of the "Great West"; for Louisiana meant vastly more than it does now, as it embraced all the country between the Mississippi River and the Rocky Mountains.

It afforded for American commerce a wider field, and for American citizens chances for making or renewing careers. Mayor Edward Livingston utilized it at once for the latter purpose. Having in the summer of 1803 contracted the yellow fever, by reason of his devotion to other victims when that scourge again overtook the city, he was, during his illness, ruined financially by a dishonest clerk. He resigned his office, went to New Orleans, rose to prominence in the newly acquired section of the Republic, and finally became Secretary of State under Jackson. This illustrated the significance of the recent acquirement, and was a conspicuous instance of what was now to become the order of the day in the United States. "Go West, young man," had not yet been enunciated as a principle, but it was acted upon as a national necessity. And as the great West developed, the reflex influence was sure to be felt in the older cities of the East, New York among the number. But certain steps in the history of human progress were needed to intervene.

One of the most important of these was the steamboat. New York City became the scene of the first practical and successful application of

steam to the purposes of navigation. Other men had made toy steamboats and exhibited them as curious experiments. But it was reserved for Robert Fulton to build the *Clermont* at a ship-yard on the East River, to run it in thirty-two hours to Albany in August, 1807, and thenceforward to make regular trips between Albany and New York. To be able to start for Albany on Monday, and to be back on Friday, when before it had taken a week barely to get there, seemed little short of a miracle in those days, but it was to be the precursor of many such, ere the century reached its close.

It bespeaks the thoroughly solid basis upon which Jacob Schieffelin had founded his business, that even in its earliest years, it could weather the serious, almost fatal, difficulties which beset the commerce of the country in so many directions. We have already alluded to the Napoleonic wars, England with its Orders in Council, and France with its Berlin Decrees, seeking to cripple or ruin the trade of Neutrals. Quite as ruinous an obstacle to commerce was the pest of piracy in the Mediterranean. Exasperated beyond endurance, the United States finally instituted vigorous proceedings against



THE BAY AND HARBOR OF NEW YORK FROM THE BATTERY, 1830
(From the New York Mirror, 1831.)



THE OLD CITY HALL, WALL STREET, 1789.
(From the New York Mirror, 1831.)

the Barbary Powers, and during the years 1801 to 1805 not only did many names gain an enviable reputation, not only did the contest practically give rise to our American Navy, but the lesson taught these piratical nations was so wholesome that our commerce was no longer hampered in that part of the world. But now another evil came into prominence. Our ships were subjected to the right of search by Great Britain, and the premonitions of the War of 1812 began. To prevent the capture of our citizens and the molestation of our ships on the high seas, the United States proclaimed an "Embargo," prohibiting vessels from leaving our ports at all. Surely nothing could have been more fatal to commerce. "War is better than embargo," Secretary of the Treasury Gallatin told President Jefferson. And war came very soon. It was a war of glory for our navy, and the prospects of our mercantile marine consequently brightened. Yet peace was gladly welcomed in 1815, for the prosperity of the country had been reduced to a very low ebb.

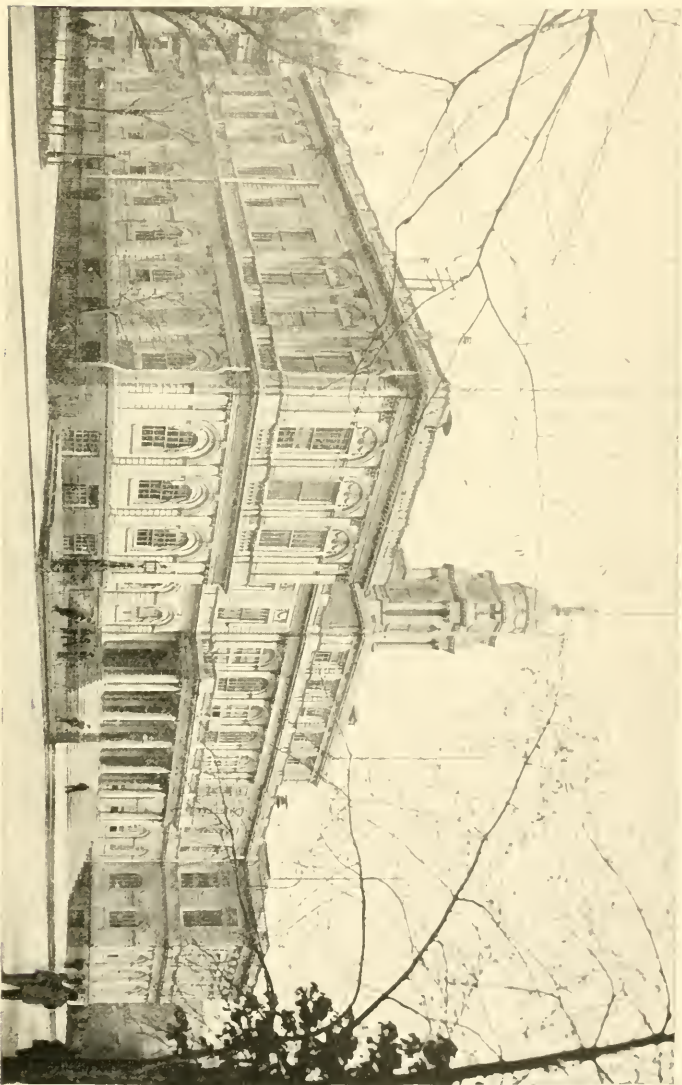
Meantime a number of incidents worthy of notice had happened within the limits of New York City, some of them way-marks in its ad-

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vance towards the position of metropolis. In the summer of 1804 the whole country was startled by the fatal result of the Hamilton-Burr duel. Animosity growing out of political differences caused the unhappy encounter; and although Hamilton had been a strong partisan on the Federalist side, men of all parties grieved over the manner of his taking off. In 1807 the Public School System received its initiatory impulse, and brought forward the name of DeWitt Clinton to honorable prominence.

He had succeeded Livingston as Mayor in 1803. In 1807 he was not Mayor, but later he filled the office again, and all through the war he bore its burdens nobly, to the satisfaction of all parties. The names of other prominent citizens, such as Samuel Osgood, Brockholst Livingston and Matthew Clarkson, were likewise identified with the movement for popular education. Teaching began in old No. 1, on Chatham Street, on April 28, 1807.

The corner stone of our City Hall was laid in 1803. In 1812 it was finished, as pure a specimen of architecture, and as much in harmony with its environment and purposes, as any structure in the land. The City Hall Park was



THE CITY HALL,
(From a photograph by E. Biersdorf, 1893.)

at this time a thing of beauty. St. Paul's Chapel stood then as now on the south, the Brick Presbyterian Church and the Park Theatre facing it on the east. A map of the city dated 1808 shows the streets to a large degree well built upon along the Bowery to Grand Street, and on the west side as far as Leonard Street; not much of an advance since 1797. What shall we think then of the remarkable proceeding of 1811, when a commission composed of Simeon DeWitt, Gouverneur Morris, and John Rutherford, laid out on paper a plan of the city, covering Manhattan Island as far as 155th Street, according to which the streets have been built up as they are at this day! Men said the Commissioners were insane; that it would take centuries before the population would cover such a vast territory! Yet events have proved how much faster things move in America than men's boldest expectations eighty years ago dared hope. Strange that at the same time that this extensive plan of streets was formed the rear of the City Hall was built of sandstone instead of marble, because it was not supposed many of the people would ever have to approach it from the rear in coming from their dwellings.

Another change in the firm was now impending. It had survived the war; two of its ships had been seized by order of Napoleon at Amsterdam, and another by the English in the West Indies. As indemnity for these losses \$10,000 only was received from France, and nothing from England.

In 1814, the war being over, but peace not yet declared, Jacob Schieffelin retired from business, leaving the management of affairs to his son Henry Hamilton. The other partners were his brothers Effingham and Jacob, Jr., the style of the firm being H. H. Schieffelin & Co.

Old books dating from the early days of the business are still preserved, showing accounts in historic banks and relations with prominent merchants of the time.

Jacob Schieffelin died in 1835, and was buried in the family vault of St. Mary's (Episcopal) Church at Manhattanville, of which he had been the first Warden. He had given the land on which this church is built on condition that it should be free. It was thus the first free Episcopal Church in America.



Henry T. Schneffelen

H. H. SCHIEFFELIN & CO.

(1814-1849)

The thirty-five years embraced in the period of the firm's history which we have now reached, were to see great advances in every direction. But first the effects of an exhausting war were to be overcome. A cotemporary writes in 1815:

"Our ships were rotting in every creek and cove where they could find a place of security; our immense annual products were mouldering in our warehouses; the sources of profitable labor were dried up; our currency was reduced to irredeemable paper." Out of this slough of despond, the vigorous young nation at the return of peace soon sprang into renewed and increased prosperity, for the natural resources were too abundant to be suppressed. Every form of industry and trade, as if by magic, recovered itself and went on to greater achievements. A few facts and figures will tell the story. In 1815 the active capital in the New York Banks was \$13,515,000. The revenue of the country in 1814 amounted to \$4,415,362; the next year it had risen to \$37,695,625. In 1816 the Black Ball Line of packets began to run between New York

and Liverpool. In 1819 the first Savings Bank was established in New York, under the guidance of John Pintard and Peter Augustus Jay; it began in July, and in December its 1,527 accounts had run up to \$153,378.

A most unique event was the reception accorded to General Lafayette on his visit to this country in 1824 and 1825. Ten years of prosperity had put the country in a most favorable condition, and the old veteran who had fought for her independence, as he went through every one of the twenty-four States in the Union, making a journey of five thousand miles, saw with delight, not only the marks of love towards himself, but the signs of material greatness everywhere abundant. Every prominent city vied in efforts to do him honor. Military, naval and civic processions occurred, illuminations were made, and balls given. In all these, New York did her full share.

A feature of importance not only to the city, but we may truly say to the whole country as well, was the establishment of the great New York daily papers, which fell within this period. The *Commercial Advertiser* (1797), the *Evening Post* (1801), the *Journal of Commerce* (1827), and

some others had been in existence for many years. But now the era of cheap newspapers was initiated. The *Sun* (1833) and *Herald* (1835) were started on this principle; the older journals in time conformed. The *Tribune* was founded in 1841, the *Times* in 1851, and the *World* in 1860. The influence of this growth of the press upon the business of the metropolis and of the country, needs no pointing out.

We are compelled to hasten rapidly over the important events that crowd this period. In 1834 occurred the first election in New York for the office of Mayor, as the previous incumbents had been appointed by the Governor. The successful candidate on this occasion was Cornelius Van Wyck Lawrence, a nephew of Effingham Lawrence. This also was the era of the introduction of useful public works. Illuminating gas first brightened homes and streets in 1825; the first house thus lighted was that of Samuel Leggett at 7 Cherry Street. The Municipal Police Act was passed in 1844, and the career of the "finest" began. In November, 1832, the first horse-car ran, and thus eventually Greenwich, Yorkville and even Harlem villages were brought nearer to the heart of business, so

that the streets whose imaginary lines crossed their fields commenced to have a prospect of greater reality about them. The fire of 1835 stimulated various tentative schemes to supply the city with water, some of which dated from 1799; and in 1842 the Croton Water Works were inaugurated with great pomp and ceremony.

The mention of the "great fire of 1835," brings to mind that amidst all these marks of progress, New York had had its share of calamities. In 1822 the yellow fever had again ravaged the city, while in 1832, a new visitation, the Asiatic Cholera, had claimed its thousands. Then, on the night of December 16th, 1835, the great fire occurred, originating in a store on Pearl Street. The weather was so intensely cold that no water was available, and the conflagration swept practically uncontrolled over thirteen acres of dwelling houses, stores, and public buildings, the most valuable in the city. From Pearl to Front it went, up Wall to Broad, to Pearl again, and over all the intervening space, destroying 693 buildings, among them the old South Church in Garden Street (Exchange Place), and the handsome marble Merchants' Exchange in Wall Street, where the Custom House now stands. The fire

raged until the third day, having destroyed \$18,000,000 of property. The recovery was quick and energetic, quite as much so as that of Chicago in 1871; but in less than two years the city was visited by another calamity equally disastrous financially. This was the "Panic" of 1837. In March, 1836, the charter of the Bank of the United States expired, and its renewal was refused. State Banks everywhere sprang up, and indulged in the wildest speculations. A sudden check came. The balance of trade against the United States was \$150,000,000, and there was not more than \$73,000,000 of specie in the country. Everywhere the Banks suspended, those of New York on May 10th. Out of this terrible stress came the excellent features of the United States Sub-Treasuries. Just a year after their suspension, May 10th, 1838, the New York Banks resumed. This period was a great strain on the strength of all business houses, and only the strongest survived.

Lafayette, as has been mentioned, traveled through all the twenty-four States of the Union in 1824 and 1825. But beyond these States lay the vast territory purchased under the name of Louisiana in 1803. Owing to the primitive

means of communication, the vastness of this region was an encumbrance rather than an advantage to the Union. In 1807 the practical utility of steamboats was manifested, and upon the great rivers these met the problem of intercommunication very well. But the East and West still needed more rapid intercourse to bring to full fruition the resources of each. The first step towards such a happy issue was the building of the Erie Canal, which connected the Great Lakes with the Hudson, thus linking the illimitable Western territory and all it could yield of natural products, with the port of New York. This scheme had been conceived at a very early date. In 1810 DeWitt Clinton advocated it heartily. But many deemed it utterly impracticable, and when the work upon it was at last begun, political antagonism made capital out of men's prejudices, and "Clinton's Ditch" became a term of opprobrium. But in 1825 the "Ditch" was finished and glory came to its intelligent promoters. The most imposing ceremonies attended the arrival of the first canal-boat at New York, on October 26, and well might the city celebrate. An authority says: "It definitely assured the supremacy of the city as the

commercial emporium of the Western Continent. Becoming the outlet of a vast territory, it followed naturally that New York should become also the point at which the supplies for that territory would be obtained." The railroad and the telegraph only were needed to complete the control of all our extended territory. These two had their origin within the period now under consideration, but their wide and beneficent application was not realized till somewhat later. We shall note their effects more fully further on.

And now a word as to the progress of the firm during these thirty-five years, so full of significant events. Sharing with other merchants the disadvantages confronting trade at the close of the War of 1812, the firm of H. H. Schieffelin & Co. overcame them, continued its existence, and as more favorable conditions prevailed, increased its prosperity. The business now in the hands of the son, Henry H., had outgrown the capacities of its original and historic home in Pearl Street. It had been moved around the corner into Maiden Lane, a street which next to Broadway was among the oldest of those of New Amsterdam. But as prosperity and extension still attended the firm, necessity arose for yet more spacious

quarters, and the firm established itself, in 1841, at 104 and 106 John Street. It may be noted that this was four years after the panic of 1837, so that we see that not only had the stress of that time been withstood, but it had not materially affected the progress of the business. In 1848 the firm purchased the large stock of Hoadley, Phelps & Co. and absorbed their extensive business. In 1849 Henry H. Schieffelin retired from the house in which he had been a partner for forty-four years, and its head during thirty-five years. He was truly a remarkable man, who seemed to have a knowledge of every science and art, and was a living encyclopedia.

He was the first vice-president of the College of Pharmacy during 1829 and 1830, before the College had a charter, and was made its President in 1831, in which year the first charter of the College was granted by the Legislature.

Four of his sons, Samuel Bradhurst, Sidney Augustus, James Lawrence, and Bradhurst Schieffelin, now constituted the principal membership of the firm, which under the style of Schieffelin Brothers & Co. continued for a period of sixteen years.



Sam^l B. Schreffelin

SCHIEFFELIN BROTHERS & CO.

(1849-1865)

The War with Mexico had added another great region of country to that which was first called Louisiana, for the territory beyond the Rocky Mountains was now ours. The discovery of gold in California in 1848, immediately attracted a large population there, with whom communication became imperative. But by means of the railroad and telegraph, which had been invented during the previous period, the Republic, from ocean to ocean, and from Canada to Mexico, was rendered during the period now under consideration, as compact for purposes of intercommunication, as the smallest monarchy in Europe.

The immeasurable and varied natural resources of the country were thus made capable of development in every section at once. This enabled it to reach a measure of wealth and power impossible of prediction a hundred years ago.

The success of the Erie Canal in the course of a few years after its opening, abundantly showed what the communication with the great West meant for New York. Railroads were first operated in England about 1819, and between

1825 and 1834 they began to be constructed for short distances in various parts of the United States. The ambition now became more and more pronounced to extend the facilities of this invention so as to reach out towards that same region of inexhaustible supply,—the West. But not till 1851 did the Erie Canal have a rival in railroad enterprise. In that year the Erie Railroad completed its connections as far as Dunkirk on Lake Erie. The Hudson River Railroad, completed in 1851, furnished, with the roads existing between Albany and Buffalo, the connecting link with New York; thus constituting what is now known as the New York Central and Hudson River Railroad. A part of this system, however, was that earliest railroad of America, the “Albany and Schenectady,” opened in 1826. In quick succession another trunk line was completed in 1854—the Pennsylvania. Meanwhile the telegraph, the handmaid of the railroad, had been maturing. Professor Morse’s first successful experiment took place in 1844. Capital was soon attracted to that which so signally proved itself to be more than a scientific curiosity. Within seven years, or by 1851, fifty different companies, operating as many lines,

were in existence; but their competition was so hurtful to the development of the service that in that year a movement for consolidation was begun, resulting finally in the mastery of all by the Western Union.

The effect upon the business of New York of the combined service of the railroad and telegraph was not long delayed, and was very noteworthy. "Heretofore," says a recent historian, "it had been the custom of the merchants of Pittsburgh, Buffalo, Cleveland, Cincinnati, and all the larger interior towns to visit New York once a year, usually in the spring, spend a month, and select their stock of goods for the coming year. Now all this was changed. The development of the railroad and telegraph made it possible for merchants in the interior to order any particular goods wanted, and to receive them within a day or two." This movement of the merchants in the spring was determined by the opening of the Erie Canal. There used to be a corresponding journey in the autumn just previous to its closing for the winter, but now there was no more apprehension on the part of these far away merchants of running out of any materials wanted, as a demand arising at any

time could soon be supplied by a requisite order and a prompt consignment. This kept the orders flying to New York all the year round, until it so extended trade that the great wholesale houses, instead of carrying a large and miscellaneous stock of goods, began to limit themselves to a single line, and their customers in ordering would divide their orders among perhaps a dozen houses.

Just forty years before the great Columbian Fair, the echoes of whose praises are still in the air about us, the first World's Fair in America was held in New York. On July 4th, 1853, it was opened by President Pierce in the Crystal Palace, standing on the ground now called Bryant Park. For by this time rapidity of communication was bringing transatlantic countries nearer to us. The famous clipper-ships were forcing even England to admire American ship building genius. Some of them crossed from New York to Liverpool in thirteen days. The Dreadnaught in 1854 actually beat a Cunard steamer by more than a day. But in such a race, steam was bound to distance mere skill depending upon capricious winds. The Collins Line of American ocean steamers was started

in 1848. The English Cunarders had already begun the career that was to result in the marvels of speed exhibited during the year 1893. In 1858 electricity began to claim the ocean also for its field of operation. After heroic struggles, in the face of stupidity, indifference and ridicule, Cyrus W. Field made the first Atlantic Cable carry messages with the swiftness of thought beneath the waters from continent to continent. But after a brief and fitful working of somewhat over a month, the Cable suddenly failed to operate. Soon afterward came the dreadful shock of internecine war, and not until after that was over, in 1866, was telegraphic communication with Europe established to fail no more.

We can only briefly note a few other events which mark the period now under consideration. The New York Clearing House Association,—tardily following the example of the London bankers, who had established a similar organization in the last decade of the eighteenth century,—began its great and useful work on Tuesday, October 11th, 1853. Four years later occurred another disastrous financial panic, spreading all over the country with its blight, finally overwhelming the New York banks on Tuesday,

October 13th, 1857. Out of it sprang, as is well known, a great religious revival. In 1854, the Astor Library, founded by New York's wealthiest merchant, was opened to the public. The Mercantile Library, fostered by merchants for the benefit of their employees, had been for years an important institution in the city, and in 1854 entered its noble home (made still more imposing recently) on Astor Place. Another instance of the public spirit and zeal for advancement in knowledge characteristic of the New York merchant, was the sending of the Grinnell Expeditions to the North Pole under Dr. Kane, in 1850 and 1853. Meantime the slavery question was agitating the country, and threatening the severance of the Union. In 1861 the blow came, and the War of the Rebellion desolated the land until 1865. The commencement of that year completed the period of the firm's existence under the style of Schieffelin Bros. & Co.

Of the four brothers, Samuel B. Schieffelin had the chief direction of affairs, and to his energy and sagacity the increasing success of the firm was largely due. The improved methods and conveniences for intercourse which had so greatly affected every other line of business were



OFFICE AND WAREHOUSE OF W. H. SCHIEFFELIN & CO.
170 & 172 WILLIAM ST. AND 40 & 42 BECKMAN ST.

taken advantage of by the firm, and the effect was soon apparent. In 1853 Asher F. Randolph, and in 1855 John D. Dix, became members of the firm. In 1854 removal was again necessitated by reason of the growth of the business. It having been determined to erect a building which should afford ample accommodation, the structure still occupied was built at 170 and 172 William, corner of Beekman Street. It is of brick, six stories in height, with basement and sub-cellar, and numerous fire proof vaults extending under the sidewalks in William and Beekman Streets.

Upon removal to this edifice, a department exclusively for Druggists' Sundries, Shop Ware, etc., was organized. This seemed to be necessary, owing to the importance which this branch of the business had assumed. The subsequent growth of business in this direction has abundantly justified this step, which the firm was the first in the trade to take.

In 1859 William H. Schieffelin (the son of Samuel B. Schieffelin) William A. Gellatly and Joseph H. Westerfield were admitted into partnership.

An instance of the firm's enterprise was its in-

telligent seizure of the opportunities opened for new business by the discovery of Petroleum in this country. An office was at once established at Titusville, Penn., and the firm was the first to bring Petroleum into New York City as an article of commerce.

In 1862, during the War of the Rebellion, William Henry Schieffelin went to the front with his regiment, the Seventh New York, of which he had been a member for five years. At Fort Federal Hill, Baltimore, he left the regiment, having received a commission as Major of the First New York Mounted Rifles, which regiment he completed by enlisting four hundred men. With it he served under General Wool in the vicinity of Suffolk, Virginia, for almost a year, and it was during this period that the siege of Suffolk by General Longstreet took place. He participated in various engagements and skirmishes, which were of almost daily occurrence. While in service at the front he still remained a member of the firm of Schieffelin Bros. & Co.

The Civil War of course affected the business of the house for a time. It had connections with every part of the South, and not only were they

suddenly broken off, and the course of trade in these directions closed up, but it also necessarily involved the suspension of many outstanding accounts, and the entire loss of some of them. Soon, however, new avenues of trade were opened up in other directions, and with the vitality belonging to a business so solidly founded, these more than compensated for the loss. When the cloud of war had once more rolled away (as in 1814 and 1849) a change in the firm again occurred. The four brothers retired from active participation. In 1865 the style became W. H. Schieffelin & Co., the partners being William H. Schieffelin, William A. Gellatly, Joseph H. Westerfield, and William N. Clark.

Samuel B. Schieffelin, on retiring from business, devoted a large part of his time to literary labors, chiefly of a religious character. Many of his own writings have been published, besides which he has from time to time purchased the plates of well-known religious books, and large editions of these have been issued at nominal prices. Several of these publications have been translated into foreign tongues.

W. H. SCHIEFFELIN & CO.

(1865-1894)

The period we have now reached obviously needs but little of the touch of the historian's hand. Its events stand but too vividly in the memories of most of those who will read these pages. The joys and blessings of peace, dashed to the ground for a moment by the calamity of the assassination of Lincoln, asserted themselves permanently, and strengthened and cheered the heart of a nation. For a nation now we truly were, with "liberty and union, one and inseparable." Webster's prophecy or apostrophe of 1829, realized at last as it never had been before, was henceforth to be hailed in its fulfilment by every section of the land. Of course there was friction, and in some regions there was the painful necessity of readjustment to the changed destiny. On the side of the victorious party too, there were agitations and political chicanery. But the logic of events was bound to prevail, and a united people, truly one nation, was, under the guidance of Divine Providence, the happy result.

A land so great, so rich in the foundations of wealth, with a people so energetic in its production, and so ingenious in its application and



J. W. Schieffelin

distribution, soon rose like a phoenix from the destructive flames of internecine hostilities. The very rebound, however, sent it upon a career of reckless venture and unwise enterprise. Hence, economic law, inexorable in business as in every other field of its operation, having been violated, brought its penalty in the panic of 1873. Owing to the lessons learned by this bitter experience, together with the fact that specie payments had been resumed in 1879, the panic of 1884, when it came, was much milder. During this period the railroad reached out its steel fingers until they touched the far Pacific. The telegraph overspread with wires the entire Continent, and connected Europe with us by more than one perfectly operating cable. The telephone came as another invaluable contribution of science to business. And next electricity, yielding ever more of her secrets, was made to light our streets, houses and offices, and to propel our street cars. Inventions multiplied and machinery perfected, have marked the last three decades in ever increasing measure.

As a result we find here in New York that Europe is brought within five and a half days of travel (it took Governor John Montgomerie five and a half months in 1728); and European events

are instantly made known to us. Chicago, Boston and Washington are within speaking distance. Trains run through our streets upon solid bridgework, bringing Harlem and Washington Heights as near the centre of business as Fourteenth Street or Canal Street were in earlier days. A hundred and forty feet above the river, with three masted vessels gliding under us, we ride or walk to Brooklyn, and feel, when we have crossed over, that we are but in a ward or integral part of the metropolis. Such is the contrast between 1794 and 1894 in material conditions; and therefore these years seem separated by a period far greater than a century. In all that concerns the mechanical, industrial and scientific progress of the race, men were actually nearer, when this firm began business in 1794, to a date centuries ago, than to the present hour. They then still had to travel the seas and rivers by ships under sail, or the land by lumbering stages or private carriages drawn by horses, just as at the end of the fifteenth century. Their homes were heated and lighted in much the same way as in the Middle Ages or under the Roman Empire. Measured by progress and not by years, how vast the distance between 1794 and 1894!



FOUR GENERATIONS.

WILLIAM JAY SCHIEFFELIN.

WILLIAM JAY SCHIEFFELIN, JR.

SAMUEL B. SCHIEFFELIN.

WILLIAM H. SCHIEFFELIN.

But in 1894 as in 1794, the house of Schieffelin still continues the business established by Jacob Schieffelin. Passing from him into the hands of the second generation, and then into those of four sons of the third, William Henry Schieffelin and William Jay his son, now represent the fourth and fifth generations from the founder. These latter generations are also represented in William N. Clark, the grandson of Henry H. Schieffelin, and his son Henry Schieffelin Clark. So interesting a showing few mercantile houses are able to exhibit.

In 1875 the concern bought the stock and absorbed the business of A. B. Sands & Co., as its predecessor had done in 1848, with the business of Hoadley, Phelps & Co.

In 1880 William S. Mersereau and William L. Brower became partners; in 1890 William Jay Schieffelin and Henry Schieffelin Clark were admitted into partnership, the former having in 1887, graduated in Chemistry at the School of Mines, Columbia College, and continued the study of this science under Prof. Baeyer, at the University of Munich, where, in 1889, he received the degree of Doctor of Philosophy.

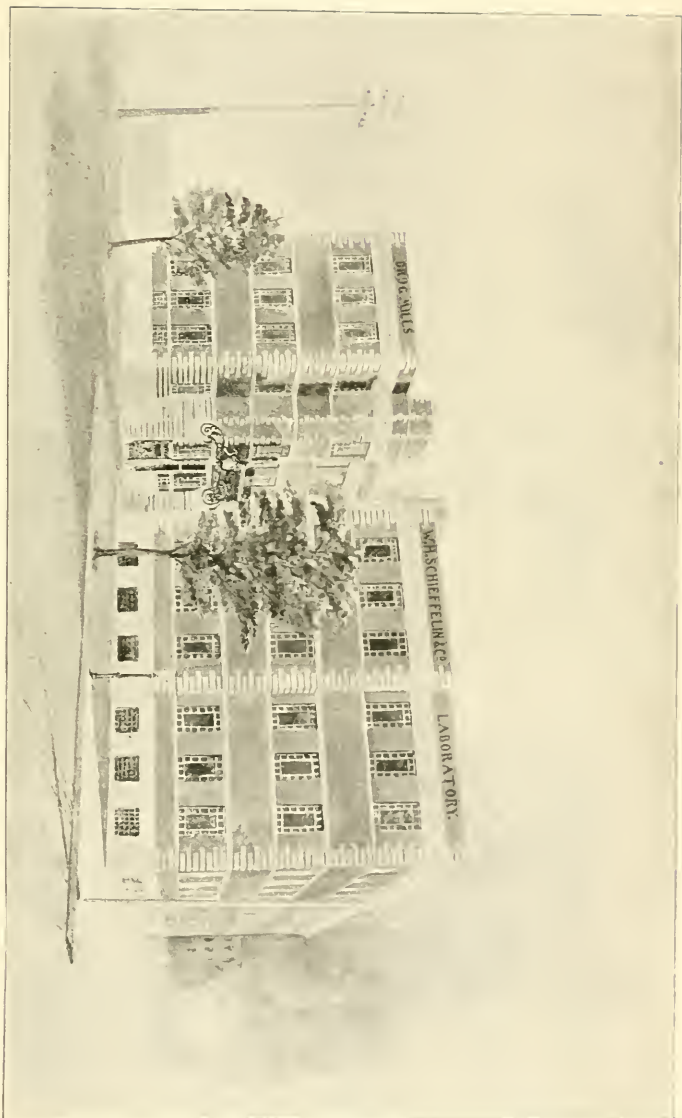
For the proper manufacture of its chemical and pharmaceutical preparations, the firm in 1882

fitted up one of the best appointed laboratories in the country. Apparatus and machinery of the most efficient character, some of which is the invention of members of the firm, is employed for its manufacturing, while every part of the world is laid under contribution for materials required, and to supply the large import trade which is carried on.

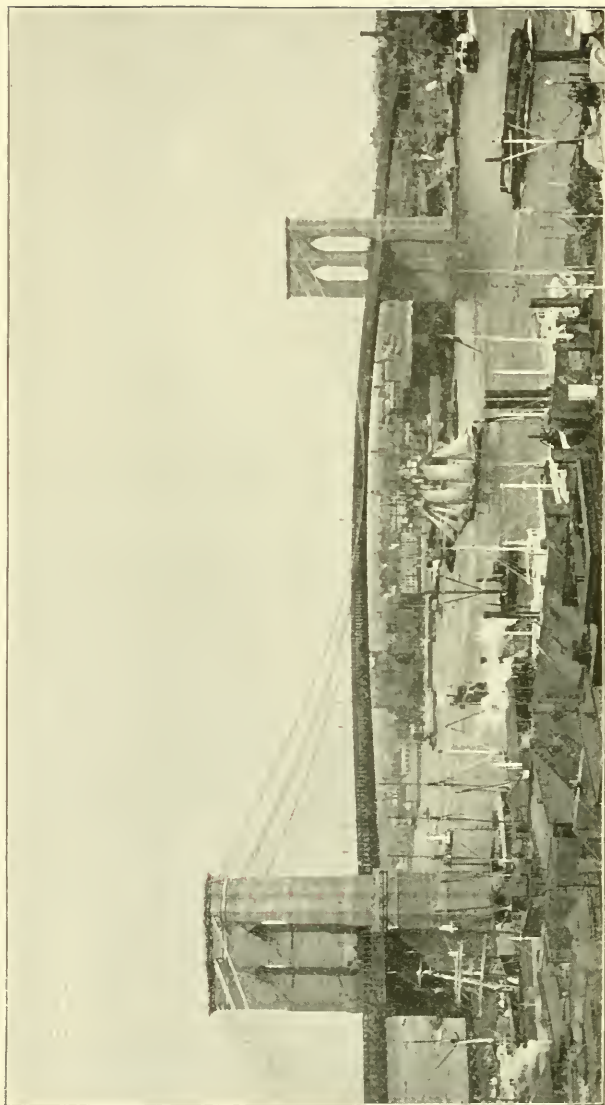
During the present year, however, the site of this Laboratory has been dedicated to the purposes of a public park. This has necessitated a removal, and the firm has purchased a site just beyond the Harlem River, on which will shortly be erected fire-proof buildings of the most approved construction and ample dimensions.

It is important also to record that through the firm's efforts, within the last ten years, physicians have become acquainted with Phenacetine, Salol, Sulfonal, Aristol, and other valuable synthetic remedies of modern Chemistry, and the firm acts as the American representative of the best equipped works in all Europe for the production of such goods—The Farbenfabriken, formerly Friedr. Bayer & Co., at Elberfeld, Germany.

The house at present has agencies for the sale of its specialties in Chicago and San Francisco, thus spanning the United States; also in London, England.



LABORATORY AND WORKS OF W. H. SCHEFFELIN & CO., IN COURSE OF ERECTION, 1894
SOUTHERN BOULEVARD, ST. ANN'S AVENUE AND 132ND STREET, NEW YORK.



THE NEW YORK AND BROOKLYN BRIDGE.

W. H. Schieffelin & Co. feel that they cannot close this history without paying a tribute to the faithfulness which has characterized their employees. A service of twenty-five years is not uncommon among their ranks, and the firm has at present in its employ ten persons whose periods of service range from thirty to forty years, while one has accomplished the extraordinary term of forty-five years. Long clerkships have been a distinctive feature in the history of the firm throughout the entire century.

On the other hand, many who have received their business education in this house, have graduated with such acquirements as have enabled them to found and build up establishments in various parts of the United States, some of these being now leading concerns in the largest cities of the West.

To all its former and present clerks, the firm extends its greeting.

Thus the business as originally established by Effingham Lawrence in 1781, but purchased by Jacob Schieffelin in 1794, and carried on by him at first in limited quarters on Pearl Street, after many migrations, and many changes in personnel, yet always under the name of Schieffelin; and always with members descended in a direct

line from the founder, has, after the steady growth of one hundred years, assumed its present generous proportions.

Hence the firm as at present constituted takes pleasure in unitedly sending forth this memorial in grateful celebration of the completed century of its existence in this year of grace 1894.

M. H. Schieffelin

W. N. Clark

W. S. Merberaud

Wm. L. Brower

Wm. Jay Schieffelin

Henry J. Clark



WILLIAM H. SCHIEFFELIN.
WILLIAM S. MERSEREAU.
WILLIAM L. BROWER.
WILLIAM JAY SCHIEFFELIN.
WILLIAM S. CLARK
HENRY S. CLARK

EXHIBITS
FROM THE ARCHIVES.

Cashier of the Bank of *New-York*,

Pay to

or Bearer,

Dollars.

New-York, the

Day of

179

FAC-SIMILE FROM LAWRENCE & SCHIEFFELIN'S CHECK-BOOK.

Dr
Messieurs Samuel Southmayd & Co
Merchants
Middletown
Connecticut

Mail

FAC-SIMILE OF A LETTER ADDRESS, JACOB SCHIEFFELIN, 1803.

DRUGS, MEDICINES, & GLASS.
JACOB SCHIEFFELIN, Druggist,
No. 195 Pearl-street, 1st

LAWRENCE & SCHIEFFELIN,

In addition to the extensive stock of Medicines in
 stores, has just received from Leipsic, London, and
 Bristol, the following articles, which he will sell
 low for cash or credit:

10,000lb Glauber Salts	400lb patent yellow
6000lb Crem. Tartar	600lb Orefiment
4000lb red & pale bark	1,200lb flour sulphur
40lb Ipecacuanha	300lb sugar of Lead
90lb da. in powder	500lb Oil of Vitrol
56lb Day Saffron	50 doz choice Cas-
10 cases Bala ganna	tor Oil
6 ——— common	400lb Ess. Bergemot
1500lb catharides	200lb ——— Lemon
500lb gum opium,	200lb ——— Orange
Turkey	50lb ——— Lavender
400lb resin, camphor	500lb Gentian Root,
800lb gum affatoxid	300lb Valerian,
8000lb liquorice ball	150lb Tormentel,
26 crates assort vial	100lb Gum Myrrh,
5600lb Red Lead in	250lb Gum Sandrach,
kags	500lb Lape. Calam.
350lb Verhgrease	500lb Sem. Fenugreek,
800lb white Viniof	500lb ——— Carni,
600lb blue do.	200lb Fir. Camomile,
80lb Prussian Blue	4000lb India Salt Petre
No. 1, 2 & 3	1000 refined ditto
800lb Ceylon Cinnamon	200lb Balsam Capius
240lb Red. Ip. exuana	3000lb Pink Root

And 12 crates shop Furniture, with a general as-
 sortment of Patent Medicines and Surgeon's instru-
 ments, Medicine chests for ships with the most ap-
 proved directions, and every article in the Drug Line
 will be sold low for CASH, or credit.—Orders from
 the Country executed with dispatch and on mode-
 rate terms.

April 1 Sp 11

TO BE SOLD,

And possession given whenever required,
 large two story, well built and elegantly fur-
 nished house, with two cellars, and

3001
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 3200
 3300
 3400
 3500
 3600
 3700
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 4000
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New York Nov^r 4th 1799

United States Bank	Dr
To Cash	3144. 59
Do	10
	<u>\$3154. 59</u>
	1261 16 9

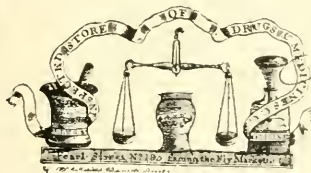
New York 6 Dec^r 1799

Manhattan Co	Dr
By my a/ct N ^o 24	2500
	<u>6</u>

Manhattan Co	Dr
To Cash	241. 33

New York Jan^y 6 1800

Bank of New York	Dr
To Cash	140. 48



New York 7th Oct 1820
 Messrs Samuel Southmayd & Co
 Bo^{rs} of J. Schieffelin
 Late
 Lawrence and Schieffelin

No 1 a case containing

✓ 20 ^{lb} Ciner. blavell.	12 ^{lb}	18. 4
✓ 2 Imp. d. ach. e. Gum.	4 ^{lb}	8
✓ 1 doz Bailey's Blacking.		6. 6
✓ 1 --- Brd. Treling ^r Small.	1	0. 0
✓ 1 --- do --- do --- large.	1	12. 0
✓ 3 --- Es. menth. pip.	11 ^{lb}	13
✓ 2 --- Rbl. Hooper.	8 ^{lb}	16
✓ 1 --- Sol. Bismuth.		10

No 4 a case containing

✓ 6 ^{lb} Ol. Veticol.	1/8	10. 12
✓ 4 ^{lb} Sug ^r Nov.	8 ^{lb}	12. -
✓ 10 ^{lb} Lozenges menth. pip.	5/5	2. 15
✓ 1 doz vials B. B. B.		1. 10. -
1 half gallon glass stop. green etc.		2. 6
pot twigs 2 ^{lb} since 8 ^{lb} Boxes 9 ^{lb}		19. -

70. 15. 8

\$ 176. 96
 discount - 10. 50
166. 46 Received payment on full

Schieffelin

CATALOGUE
OF
Drugs,
MEDICINES & CHEMICALS,
SOLD
WHOLESALE & RETAIL,

BY

Jacob Schuffelen
193 Pearl Street
New York

NEW-YORK:

PRINTED BY WILLIAM A. DAVIS,
No. 39 WILLIAM-STREET.

1804.

Examined, and approved by
The New York Druggists Association
New York August 6th 1806.

By Order

Henry H. Schuiffelin Dees

	lb.	$\frac{1}{2}$ lb.	$\frac{1}{4}$ lb.	oz.	dr.
Gummum gambogia, .	2 4/8				
— juniperum, .	8/				
— kino commune, .	12/				
— — optime, .					
— labdanum, .					
— lacca, (seed)					
— — (shell)	4/8				
— — (stick)					
— mastiche, .					
— myrrh. commune, .	4/8				
— — optime, .					
— olibanum, .	4/				
— opium, .	5/8				
— opoponax, .					
— sagapenum, .					
— sang. dracon. com.	10/				
— — opt. .					
— sarcocolla, .					
— scammon. Aleppo,					
— — Smyrna,					
— Senegal, .	3/				
— styrax calamita, .	12/				
— — in lachrymis,					
— — liquida, .					
— tacamahaca, .					
— thus, .	2/8				
— tragacantha com. .					
— — optime, .	12/				
H					
Hepar sulphuris, .					
Hiera picra, .	8/				
Hordeum perlatum, .	2/				
Hyosciamus, .					
Hyssopus, .					
I					
Ichthyocolla incisiva, .					

New York 25th Oct: 1810

B ^t of Seth Low			
1. Double Basket Gunattaekyspa,			
Gr- 424			
For - 24 at \$400			
1. Single Basket 8 th - - - -	80 ^{fr}		
	430 ^{fr} 14	196	638.72
1. Double Basket 8 th Inferior at 54 ^{fr} 13			54.60
Baskets for Drugg			\$592.52

New York 30 June 1817

303

B ^t of John Jacob Astor			
164 Bundles Capin 5 ^{fr} 10 th			
5 ^{fr} 7 th 8 th 2 th 53 2 th Note - - -	40 th	212	80
Halfbaroon Indigo 5 ^{fr} 1 th			
10 ^{fr} 10 th 5 th 46 th Note - - -	82	92	
4m			\$304.80

New York 3th Nov: 1817.

B ^t of Henry Grinnell			
1. Bale Lenna 406			
20 at 286 th		15	57.90
5			

APPENDIX.

ONE HUNDRED YEARS OF CHEMISTRY AND PHARMACY.*

During the hundred years that have elapsed since the establishment of the house whose history has been sketched in the previous pages, so marvellous has been the progress in chemistry and pharmacy, that volumes could be devoted to this subject.

It was in the latter part of the last century that the foundations were laid for the exact chemical science of the present day, and that chemistry was divested of the mysteries and superstitions in which it had been enshrouded by alchemy. The new era was ushered in by the discovery of oxygen by Priestly in 1774, who called it "dephlogisticated air." This gas was also discovered by Scheele, an eminent Swedish chemist and apothecary, who published his discovery of "empyrean air" (oxygen) in 1777, being unaware that it had been previously discovered; but to Lavoisier belongs the credit of proving oxygen to be an element, and also of having in 1787 rendered a most important service by reforming the chemical nomenclature, substituting a simple, systematic and expressive terminology for the absurd or fanciful terms of the alchemist. Then followed the wonderful discoveries of Sir Humphrey Davy, Fourcroy, Vanquelin, Klaproth, Wochler, Berzelius, Chevreul, Liebig, Hoffman,

*In reviewing the business progress of a century, it seemed fitting also to cast a retrospective glance at the progress of chemistry and pharmacy during this period. It is hoped that these notes may prove of interest to the reader.

Bunsen, Bayer and a host of others, who have made a science of what had been a "chimerical art."

To Sertürner, an apothecary at Eimbeck in Germany, belongs the credit of having opened a new and most important field of research. In 1804 he prepared the first alkaloid from opium; to this he gave the name of morphium, which has subsequently been changed to morphine, in order to conform to the names given to other alkaloids. In 1818 Pelletier and Caventou discovered strychnine, both in *nux vomica* and in the bean of St. Ignatius, and to them belongs the honor of demonstrating in 1820 the alkaline character of the bases of cinchona bark, which they called quinine and cinchonine, names that are still retained. These results stimulated research in this direction, and were the beginning of what has since become a most important branch of pharmaceutical industry.

The evolution of organic chemistry is one of the scientific triumphs of the nineteenth century. In 1828 Woehler showed that organic compounds could be formed from their elements, and later, Fownes demonstrated the possibility of forming products of the living organism from inorganic elements. Since that time the synthetical method of chemical research has been cultivated with wonderful success. It is to this line of investigation that medicine in recent years is indebted for many of the valuable remedies in use at the present time; antipyretics and analgesics, like acetanilid, antipyrin, and phenacetine; antiseptics and cicatrisants like aristol and euophen; antirheumatics like salol and salophen; and hypnotics like sulfonal and chloralamid. Within the last ten years there have been added to the *materia medica* list more than a hundred new synthetic remedies, which, previous to this time, were entirely unknown.

Very many of the most ordinary and useful articles of the present *materia medica* are of very recent introduction. When

quinine was first brought to notice, it was a very expensive remedy, and for a long time was prescribed in one grain doses. Iodine, discovered in 1812 by Courtois, a soda manufacturer of Paris, was first employed in medicine in 1819. Bromine was discovered in 1826 by M. Balard, of Montpellier, France. Aluminium was first obtained in 1828 by Wochler, in globules the size of a pin's head. It is now manufactured in large quantities and the price has been very greatly reduced. Chloroform was discovered by Mr. Samuel Guthrie, of Sacketts' Harbor, N. Y., in 1831, and about the same time by Soubeiran in France and by Liebig in Germany. Creosote, discovered in 1830, was brought out as a cure for everything, and sold for two dollars an ounce. Carbolic acid was discovered by Runge in 1834. Ether had long been known to possess anæsthetic properties, but it was not until 1846, however, that attention was particularly drawn to ethereal inhalation as a remedy for pain. Dr. W. T. G. Morton and Dr. C. T. Jackson, both of Boston, each claim to have been the discoverer of this use of ether. From this beginning, however, the employment of ether by inhalation for the prevention of pain has spread throughout the civilized world. The anæsthetic property of nitrous oxide or laughing gas, as also its exhilarating influence, was discovered by Sir Humphrey Davy in 1800, but its first practical application for prevention of pain in surgical operations was made by Dr. Horace Wells of Connecticut. A great improvement in the manufacture of cod-liver oil was introduced in 1853 by Peter Möller, of Norway. Eserine was discovered in 1865; the oleates were introduced to the medical profession in 1872; and thus we might enumerate a long list of preparations and remedies brought into use within the last fifty years—such as petrolatum, collodion, cocaine, pepsin, peptones, extracts of meat and malt, hydrogen dioxide, gelatin coated pills, sugar coated pills, compressed pills, tablet triturates, hypodermic tablets, etc., etc.

The manufacture of aniline dyes from coal tar oil (formerly a refuse of the gas works) by synthesis, is one of the most remarkable, as well as brilliant achievements of modern chemistry, aniline having been discovered in 1826, and we now see colors of every shade, reds, purples, blues, black, yellows, and some of them truly magnificent.

Alizarin was recognized by Graebe and Lieberman in 1868, as a derivative of anthracene,—a hydrocarbon contained in coal-tar, and in the same year they devised a method of preparing it from anthracene. Thus was created a great chemical industry, and alizarin has been produced in such quantity as to entirely supersede the use of the madder plant. The amount of artificial alizarin produced in 1881 was 14,000 tons of 10 per cent. paste, valued at \$8,000,000. The importation of alizarin into the United States for the year 1892 was 4,838,270 lbs., valued at \$1,029,143. Indigo has also been made artificially, although not yet so cheaply as to supersede that from cultivation.

That these great advances in chemistry exerted a progressive influence upon medicine and pharmacy is easily understood, and we find that correspondingly great advances in pharmacy have also been made. During the first thirty years following the establishment of the Republic, the pharmacist had no practically recognized standing, the physician for the most part compounded and dispensed his own medicines; there were no colleges of pharmacy and the education of the average pharmacist was confined to what he learned from practical experience while working in the shop and by personal application.

The duties and labors of the apothecary's apprentice differ greatly from those of former times. Years ago he became well acquainted with hard manual labor. He could not send to the convenient wholesale store or drug mill and get his supplies in form prepared ready for use; he must powder his colocynth, his

aloes and his capsicum, slowly and laboriously in a mortar, while mercury with chalk, blue mass and mercurial ointment were all made in the shop. He had to prepare enema apparatus; no rubber tubing or bulbs were to be had; the apprentice had to secure a supply of bladders, tie a pipe securely into the neck, and one would be sent out with each clyster. There were no ready-made machine plasters, but plasters had to be furnished as occasion required, and as with mixtures, an impression seemed to be prevalent that the more nasty or nauseous they could be made, the more efficacious they became. Pills were rolled with the fingers, and coated or compressed pills were unknown. Professor W. R. Fisher, writing in the *American Journal of Pharmacy* in 1837, says:

“Not thirty years ago the druggist’s shop was a mere warehouse or magazine whence physicians drew their supplies for the purpose of dispensing medicines to their patients; whence paints, glass and varnish were distributed from the same hands, as rhubarb, calomel and magnesia, and whence arsenic and cream of tartar were furnished, wrapped in an undistinguishable manner, each destitute of any mark by which its different character might be recognized. Within that period a new order of things has, in some places, sprung up:—prescriptions are now compounded with as much skill, accuracy and neatness, as may be found in any other country of the globe; and from the best regulated establishments, nothing is put up or suffered to go out, without a distinct and appropriate label. Another advantageous change has also been effected: Pharmacy, properly so called, has been separated from mere dealing in drugs, and the two classes of retail and wholesale druggists have become almost entirely distinct. Paints and their concomitants are rarely found exposed for sale in those shops where the practice of dispensing medicines for family consumption is pursued, being entirely in-

compatible with the order, neatness and cleanliness which have been found requisite to command the confidence and patronage of the public."

Opportunities and facilities for education, both general and special, within the last fifty years, have vastly improved. Our public school system enables even the poorest to obtain a fair education; while colleges and schools of instruction in chemistry and pharmacy are yearly increasing. The first College of Pharmacy was founded in Philadelphia in 1821, there are now more than twenty colleges scattered throughout the United States, and there have been instructed and graduated in these various colleges more than 30,000 students.

The American Pharmaceutical Association was organized in 1852, and now numbers over 1,600 members. Since that time there have been established Pharmaceutical Associations in nearly all of the States, and the beneficial influence exerted by these bodies has unquestionably been very great.

Perhaps no subject has had a greater influence in promoting the advancement of pharmacy in this country during the last half century, than the study and development of percolation and the introduction of preparations which are the direct outgrowth of the process. The demand for fluid extracts has given an extraordinary stimulus to studies in percolation. The first attempt to apply the principle to powdered drugs was made by Count Real in 1815, but it was not until 1833 that any practical use was made of it, when the Boullay Brothers of Paris applied the process to drugs and medicinal substances in general, and demonstrated its value in its pharmaceutical applications. The researches of the Boullays attracted the attention of American pharmacists. A very interesting paper on the subject by Augustine Duhamel was published in the *American Journal of Pharmacy*, April, 1838, giving full explanations of the process, together with the results of many experiments, showing its great



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advantages over the methods of infusion and maceration. The subject was carefully and laboriously studied by Procter, Grahame, Squibb and many others, and was introduced into the United States Pharmacopœia in 1840, coupled, however, with the cautionary advice, that "to those not familiar with the process, the plan of maceration is recommended."

Fluid extracts were made official for the first time in the U. S. P. of 1850, the list comprising seven concentrated preparations, although only one of these would at present be called a fluid extract. The list has been increasing with every revision of the work, and the U. S. P. of 1890 gives formulas of eighty-eight fluid extracts, the list embracing a greater number of preparations than any other class in the work.

Dr. Squibb has devised an improvement on the process of percolation, with a view of obtaining concentrated preparations such as fluid extracts, without having to resort to evaporation. This process is called reperecolation, and consists in the successive application of the same percolating menstruum to fresh portions of the substance to be percolated. Another object of the process is the saving of alcohol; no heat being used, there is no loss of alcohol by evaporation.

The gradually improving status of pharmacy is well illustrated by reference to our National Pharmacopœia. The first public recognition of the services of pharmacists in this connection was in 1840, when letters were addressed to the Presidents of the Colleges of Pharmacy of Boston, New York and Philadelphia, requesting their co-operation in the revision of the work. In the call for the meeting of the Convention for 1850, "The Incorporated Colleges of Pharmacy throughout the United States were requested to elect a number of delegates not exceeding three" to attend the convention. In accordance with this call, there assembled in Washington, May 6th, 1850, thirty delegates,

of whom twenty-five were physicians and five pharmacists. The committee appointed by this convention to prepare and publish the work, consisted of eight physicians and two pharmacists. In the Convention of 1860 were present twenty-nine delegates, of whom nineteen were physicians and ten pharmacists. The final committee consisted of five physicians and four pharmacists. In the Convention of 1870 were present fifty-nine delegates, of whom forty-three were physicians and sixteen pharmacists. The final committee consisted of ten physicians and five pharmacists. In the Convention of 1880 were present eighty delegates, of whom fifty-two were physicians and twenty-eight pharmacists. The final committee consisted of twelve physicians and thirteen pharmacists. Fifty-five medical bodies and fifty-five incorporated pharmaceutical organizations sent delegates to the Convention of 1890, which selected from those present twenty-six members, consisting of fifteen pharmacists and eleven physicians, who were designated the Committee of Revision and Publication of the Pharmacopœia of the United States. The result of their labors is the Pharmacopœia of 1890 which has just been published. This work shows evidence of much careful thought and investigation and has been universally acknowledged, both at home and abroad, to be the best pharmacopœia ever published.

During the last two or three decades much valuable pharmaceutical research has been carried on in the United States. In the production and perfection of elegant, efficient and accurate preparations, the house of W. H. Schieffelin & Co. has prominently contributed, and in this branch of pharmacy the United States occupies a leading position among the nations of the world.

SEP 1914

